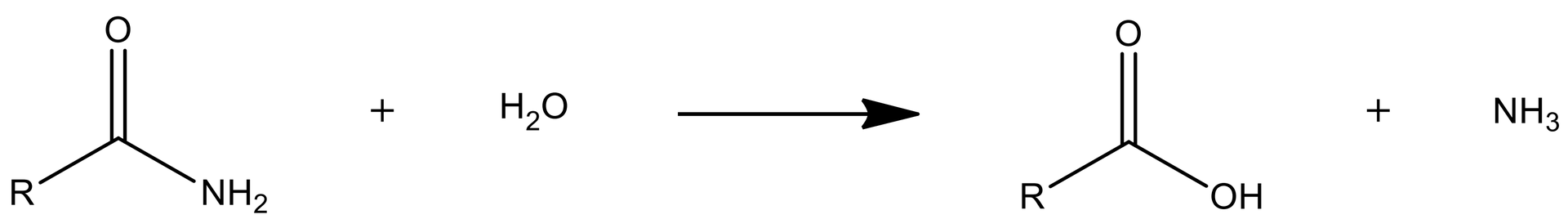
Amidase (AMD) Enzyme Screening Kit

AMDESK-600

Partnering to Advance Human Health

Applications

Selective hydrolysis of amides in aqueous solution



Kit description

The kit contains 6 diverse pre-formulated Amidase (AMD) biocatalysts as lyophilised powders, as well as pre-prepared phosphate buffer.

AMDs contained in the screening kit

AMD 101
AMD 106
AMD 107
AMD 109
AMD 110
AMD 125

Contents

AMDs	6 enzymes (50 mg)
Dithiothreitol (DTT)	100 mg
0.1M KH_2PO_4 buffer (pH 7.2)	60 mL

Screening Procedure

1. Label 6 x 2mL vials corresponding to the six different AMDs provided in the kit.
2. Add DTT (15.4 mg) in 10 mL of buffer provided to make a 1 mM DTT buffer**.
3. Add 10 mg of enzyme into the labelled vial.
4. Add 450 µL of buffer containing 1 mM DTT to each vial.
5. Add 2-10 mg of amide in 50 µL of DMSO to each vial.
6. Incubate overnight at 37 °C with agitation.
7. The reaction can be analysed by HPLC or TLC to check for hydrolysis.

**It is recommended to make the reaction mix solution fresh and use immediately. Avoid storage of the reaction mix as a solution, as this will degrade over time. An adequate supply of DTT and buffer is provided for five screens. Additional DTT or buffer can be purchased from Almac if required.

Storage: Recommend refrigeration at 4°C to preserve enzyme activity

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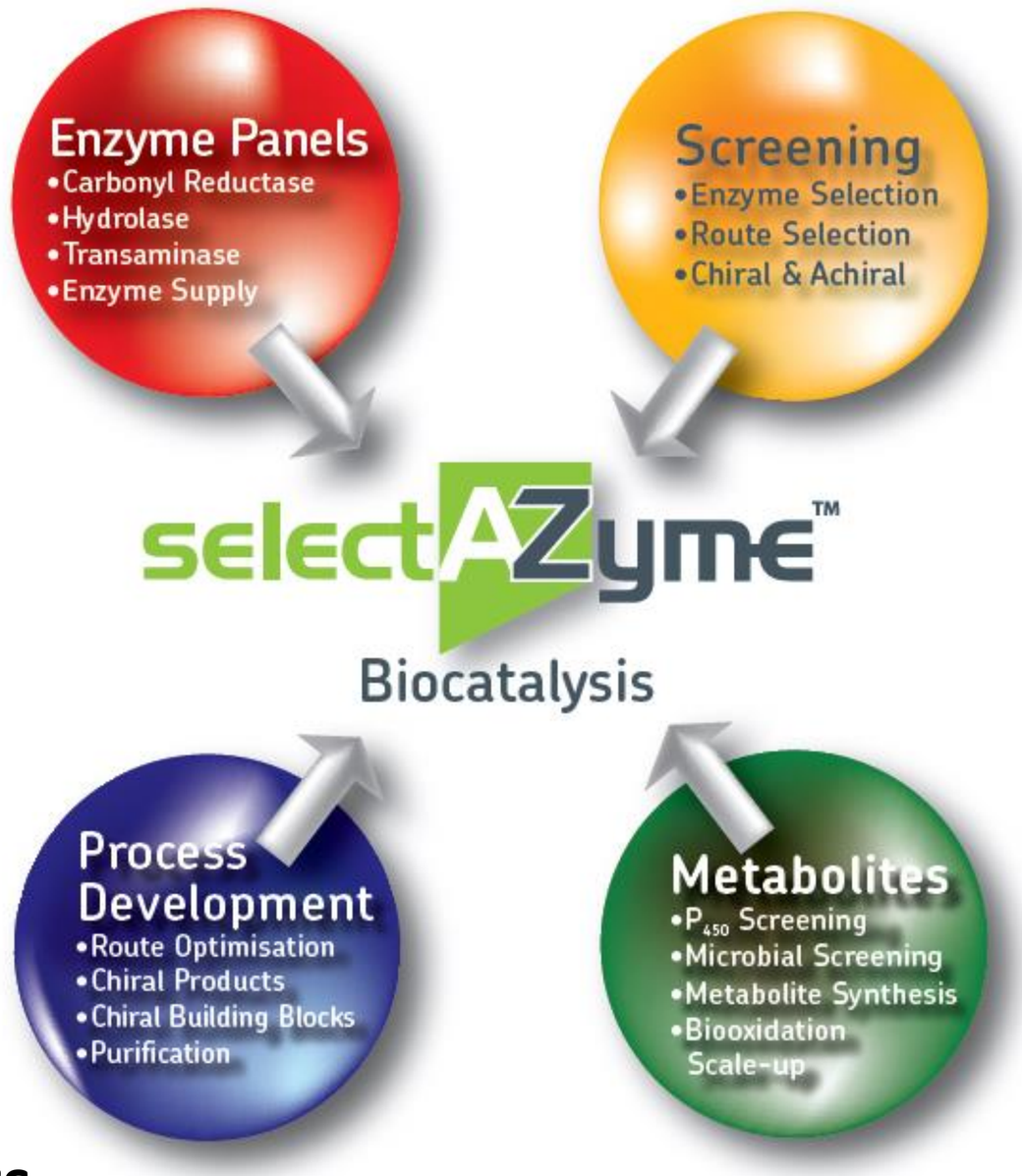
selectAZyme Offerings

- An ever-expanding biocatalysis team including molecular and microbiologists, enzymologists, bioinformaticians, organic chemists and analysts, all equipped with state-of-the art facilities.
- Expertise in gene identification, expression, fermentation and enzyme production, followed by the efficient use of enzymes to produce complex chiral APIs.
- Enzyme evolution based on computational re-design, semi-rational and random mutagenesis approaches, allowing access to bespoke biocatalysts with enhanced activity, selectivity and process robustness.
- Fully integrated biocatalyst development through screening, (chemo-) enzymatic route definition, process development and scale up (pilot plant facilities available).
- Rapid implementation of enzymatic steps in complex, multi-stage syntheses, leading to significant improvements in production yields and timelines.
- A simple business model that avoids IP issues.



The selectAZyme Range of Enzyme Screening Kits

Our selectAZmye kits include a detailed user guide and come with all buffers, cofactors, recycling systems and reagents necessary to perform screens using standard laboratory equipment.

Carbonyl Reductase (CRED) biocatalysts

96 CRED biocatalysts for the production of chiral alcohols and/or use in cofactor recycling schemes

Aldehyde Reductase (ARED) biocatalysts

16 ARED biocatalysts

Hydrolase biocatalysts

48 commercially available hydrolases for selective acylation of alcohols and amines.

Nitrilase and Nitrile Hydratase (NHase) biocatalysts

9 NHases and 15 nitrilases

Transaminase (TAm) biocatalysts

96 TAms for the prodcution of chiral amines from pro-chiral ketones.

Ene Reductase (ERED) biocatalysts

143 ERED biocatalysts for asymmetric reduction of activated alkenes

P450 Monooxygenase biocatalysts

96 P450 monooxygenase biocatalysts for a huge range of highly selective oxidations

Want Almac to do the screening for you?

- Our experienced biocatalysis team can screen all of our enzymes against your target substrate(s) and simply provide the results.
- Flexible options for subsequent enzyme supply, evolution services, process development and scale up as required.

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